

### **REMARKS**

This Amendment is in response to the non-final Office action (Paper No. 20081124) mailed on 30 March 2009. Reexamination and reconsideration are respectfully requested.

#### **Listing of The Claims**

Pursuant to 37 CFR §121(c), the claim listing, including the text of the claims, will serve to replace all prior versions of the claims, in the application.

#### **Status of The Claims**

Claims 1, 27-29 and 31-34 are pending in this application.

#### **Amendment of The Claims**

Claim 27 is amended.

#### **Issues Raised by the Non-final Office Action (Paper No. 20081124)**

In the Non-final Office Action (Paper No. 20081124), the Examiner stated:

- Claims 1, 27-29 and 31-34 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement;
- Claims 1 and 27 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention;
- Claims 1 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over McConnell et al. (US Patent No. 6970719, hereinafter McConnell) in view of Billstrom (US Patent No. 5590133) further in view of Stevens (TCP/IP Illustrated Volume, p. 37-41) further in view of Lim (US 6697355); and
- Claims 27-30 rejected under 35 U.S.C. 103(a) as being unpatentable over

McConnell, Billstrom (US Patent No. 5590133) ,Stevens and Lim in view of Eyuboglue et al. (US Pub. 20020196749, hereinafter Eyuboglu).

Applicant respectfully traverses because of the following reasons.

### **I. Claim Rejections 35 U.S.C. §112**

**I-1. Claims 1, 27-29 and 31-34 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.**

Regarding claims 1, 27-29 and 31-34, in Paper No. 20081124, the Examiner alleged that:

“The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The independent claims recite,  
"a call connection request signal from a terminal through the private base station, to compare a server address included in an Unicast Access Terminal Identifier (UA TI) assigned to the terminal with a set of server addresses pre-stored in the first hub, to transmit the call is not among the set of server addresses pre-stored in the first hub; and to transmit the call connection request signal to a second hub when said sever address included in the Unicast Access Terminal Identifier (UATI)".

Thus the claim is calling for a UATI of the calling terminal being used to compare with the stored server addresses to determine whether the call should be routed to public or private network. However the examiner only found that the UATI of the called (not calling) terminal is being used for the comparison not the calling end (see highlights of the paragraphs below.)

The examiner believes that there's only support for a UA TI of the destination terminal (not the UATI of calling/originating terminal) being used to compare with the

stored server addresses to determine whether the call is routed to public or private network. Thus for examination purpose, the examiner will examine the claim in light of the specification wherein the address being used for routing purpose is that of the UATI of the destination. If the address being used for routing to route the call is that of the originating phone, then more explanations in the specification would be needed to explain how it is done.”

Applicant respectfully traverses because the support for Applicant’s claim 1’s “to compare a server address included in an Unicast Access Terminal Identifier (**UATI**) **assigned to the terminal** with a set of server addresses pre-stored in the first hub” can be found throughout Applicant’s original specification as filed.

Specifically, paragraph [0041] of Applicant’s original specification reads:

“... When none of the predetermined server addresses are contained **in the Unicast Access Terminal Identifiers of the terminal originating the call** and of the terminal or server at which the call is requested to be terminated, the call is detected as a call to the public wireless network. ... .”

According to paragraph [0041] of Applicant’s original specification, the predetermined server addresses pre-stored in the first hub is compared with both of the UATI of the terminal originating the call (originating terminal) and the UATIs of the terminal or server at which the call is to be terminated (destination terminal). Therefore, Applicant’s original specification discloses a step of comparing the **UATI of the originating terminal** with a set of server addresses pre-stored in the first hub.

In addition, paragraph [0058] of Applicant’s original specification reads:

“At step S300, when a terminal 11 requests origination of a call through 1x EV-DO system, ... At step S304, the hub

110 judges whether the received access request signal is requesting to connect with the private wireless network or the public wireless network. As described above with reference to FIG. 1, this judgment is carried out by **comparing the server address of the terminal 11** with addresses stored in advance....”

According to paragraph [0058] of Applicant’s original specification, the server address (i.e., the UATI) of the terminal 11, which is the originating terminal, is compared with the address pre-stored in hub 110.

Therefore, the support for claim 1's “to compare a server address included in an Unicast Access Terminal Identifier (**UATI assigned to the terminal**) with a set of server addresses pre-stored in the first hub” can be found throughout Applicant’s original specification as filed.

Consequently, Applicant respectfully submits that Applicant has fulfilled the written description requirement of 35 U.S.C. §112. Withdrawal of this rejection of claims 1, 27-29 and 31-34 is respectfully urged.

**I-2. Claims 1 and 27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

Regarding claims 1 and 27, on page 4 of Paper No. 20081124, the Examiner stated:

“Claim 1 recites that “the data location register assigning the UATI. ... ” and then Claim 27 seems to contradicts with claim 1 by reciting that “the base station assigns a UATI ... ” Therefore, it is not clear why two separate entities assign a

UATI to the terminal, which assigned UATI would be used for routing?”

The Examiner’s thorough examination is highly appreciated.

As disclosed in paragraphs [0039] and [0041] of Applicant original specification, the assignment of the Unicast Access Terminal Identifier (UATI) is performed by the data location register (DLR), rather than the base station. Specifically, paragraph [0039] of Applicant original specification reads:

“... Typically, only **a data location register (i.e., the "DLR") assigns the UATI to a terminal**, and then transmits the assigned UATI to a base station where a mobile terminal is located. At this time, the base station usually performs only an operation for transferring the UATI to the mobile terminal on a radio line. ... .”

In addition, paragraph [0041] of Applicant original specification reads:

“For example, **a Unicast Access Terminal Identifier is assigned by a data location register (DLR) 121** to a private wireless network subscriber to have a predetermined server address. ... .”

According to paragraphs [0039] and [0041] of Applicant original specification, the DLR assigns a UATI to each of the mobile terminals, and transmits the assigned UATI to a base station where the mobile terminal is located; and the base station transfers the assigned UATI to the mobile terminal.

Accordingly, claim 27 is amended to recite that the base station transfers the assigned UATIs to each of the corresponding terminals. The amended claim 27 reads:

“27. The system according to claim 1, wherein:  
the base station transfers the assigned Unicast Access

Terminal Identifiers (UATIs) to each of the corresponding terminals of the public wireless network and the private wireless network ...”

This amendment of claim 27 is supported by paragraphs [0039] and [0041] of Applicant’s original specification. No new matter is added.

In view of this amendment of claim 27, the rejection of claims 1 and 27 should be withdrawn.

## **II. Claim Rejections – 35 USC § 103**

**Claims 1 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over McConnell et al. (US Patent No. 6970719, hereinafter McConnell) in view of Billstrom (US Patent No. 5590133) further in view of Stevens (TCP/IP Illustrated Volume, p. 37-41) further in view of Lim (US 6697355).**

**II-1.** One principal patentable distinction between the pending claims and the combined prior art is that the combined prior art fails to disclose Applicant’s “*the first hub comparing a server address included in an Unicast Access Terminal Identifier (UATI) assigned to the terminal (originating terminal) with a set of server addresses pre-stored in the first hub*”. See the pending claims:

***claim 1***, “to receive a **call connection request signal from a terminal** through the private base station, to compare a server address included in an Unicast Access Terminal Identifier (UATI) **assigned to the terminal** with a set of server addresses pre-stored in the first hub”; and

***claim 32***, “**receiving an access request signal, from a**

**mobile terminal** at a private base station servicing a service area where the mobile terminal is located, with the access request signal comprising a destination address and an UATI of the mobile terminal; ...

making a determination, at the first hub, regarding whether the **server address contained in the UATI received from the mobile terminal** is among the plurality of server addresses stored in the first hub”.

Regarding the above-cited claim language, in Paper No. 20081124, the Examiner explicitly admitted that the combination of McConnel ‘719 and Billstrom ‘133 fails to disclose Applicant’s *“routing the call to the first hub on the basis of a sever address included in a Unicast-Access Terminal Identifier (UATI) assigned to a destination address and to route the call connection request signal to a second hub when said sever address included in the Unicast Access Terminal Identifier (UATI) or in the destination address is not the same as said sever address of the first hub”*. But the Examiner alleged that Stevens (TCP/IP Illustrated Volume) teaches IP routing by matching host address in a routing table, and that it would have been obvious to modify McConnel ‘719 and Billstrom ‘133's system to use Steven’s teaching of IP routing to route packets. Specifically, on pages 7-8 of Paper No. 20081124, the Examiner stated:

“Stevens also teaches the concept of comparing a server address included in an Unicast Access Terminal Identifier (UATI) assigned to the terminal with a set of server addresses pre-stored in the first hub (page 112, Section 9.2, a search for a matching host address in the routing table, which means the host/server addresses are pre-stored.) Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to modified McConnell's private and public communication system to include Billstrom's PSDN which uses Stevens's teaching of IP routing to route packets to either a

current internal/private router and to a second/external/public router based on the comparison of the destination address with the serving hublrouter. This modification would be more efficient because no paging of current location of the destination MS is required which reduces system resource usage. Furthermore, with I P routing, the size of the routing table is limited to thousands and not over populated to millions (paragraph before the example starts, page 39), thereby decreases the time in parsing the routing table and thus increase efficiency in routing.”

Applicant respectfully traverses because Stevens does not teach or suggest comparing a server address included in a UATI assigned to the terminal that is originating the call.

Specifically, Stevens merely discloses determining a next router (or node) by searching a routing table in dependence upon a destination IP address.<sup>1</sup> Stevens fails to disclose the feature of determining a next route of a call connection request signal by using a source address, i.e., an UATI assigned to a terminal requesting call connection.

As a result, neither one of McConnel ‘719, Billstrom ‘133 and Stevens, nor the combination thereof, teaches or suggests Applicant’s claims 1 and 32’s “*comparing a server address included in a UATI assigned to the terminal that is originating the call*”.

Consequently, the rejection of claims 1 and 32 is in error and should be withdrawn.

**II-2.** Another principal patentable distinction between the pending claims and the

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<sup>1</sup> Stevens’s page 39, the ninth paragraph reads: “When IP receives the datagram from one of the upper layers it searches its routing table and finds that the **destination IP address** (140.252.13.33) is on a directly connected network (the Ethernet 140.252.13.0). ... .”



combined prior art is that the combined prior art fails to disclose Applicant's "*the data location register assigns the UATI to the terminal*". See the pending claims:

*claim 1*, "the **data location register** assigning the Unicast Access Terminal Identifier corresponding to the terminal, when the terminal enters a service area of the private base station";

*claim 32*, "the private base station servicing a service area and the **data location register** assigning an Unicast Access Terminal Identifier (UATI) to each of a plurality of mobile terminals located within the service area".

Regarding the above-cited claim language, in Paper No. 20081124, the Examiner explicitly admitted that the combination of McConnel '719, Billstrom '133 and Stevens fails to disclose a data location register (DLR) assigning the UATI to the terminal. But the Examiner alleged that Lim '355 teaches that a data location register assigns the UATI to the terminal, and that it would have been obvious to combine all of the references. Specifically, on page 8 of Paper No. 20081124, the Examiner stated:

"However, they do not specifically teach a DLR assigning UATI address to the terminal. In an analogous art, Lim teaches a data location register assigning the Unicast Access Terminal Identifier corresponding to the terminal, when the terminal enters a service area of the private base station (C4 L37-67, C5 L 15-32). Therefore, it would have been obvious for one skill in the art at the time of the invention to combine all of the above references with Lim's teaching of assigning the UATI by the DLR to facilitate the communication and keep track of the mobility of the terminal."

Applicant respectfully traverses because Lim '355 does not teach or suggest that a data location register assigns a Unicast Access Terminal Identifier to a terminal.

Specifically, Lim ‘355 merely teaches that a plurality of mobile host Identifiers that are assigned to the data terminal stations are registered in a host location register (HLR), and that a plurality of mobile identification numbers (MIN) of the mobile stations are also registered in the HLR.<sup>2</sup> Accordingly, Lim ‘355's HLR registers, rather than “assigns”, the plurality of mobile host Identifiers of the data terminal stations, and the plurality of mobile identification numbers (MIN) of the mobile stations. There is no disclosure in Lim ‘355 regarding which device actually assigns the mobile host Identifiers to the data terminal stations, or which device actually assigns the mobile identification numbers (MIN) to the mobile stations.

Therefore, neither one of McConnel ‘719, Billstrom ‘133, Stevens, and Lim ‘355, nor the combination thereof, teaches or suggests Applicant’s claims 1 and 32’s *“data location register assigning the Unicast Access Terminal Identifier corresponding to the terminal”*.

Consequently, the rejection of claims 1 and 32 is in error and should be withdrawn.

**II-3.** Applicant finds that the assertion written on page 6 of Paper No. 20081124, namely,

“it is a well known concept of I P routing to use

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<sup>2</sup> Lim ‘355's column 5, lines 16-23 reads: “As a subnetwork connected to the Internet 400 and the mobile switching center MSC1, the IWU1 has a plurality of **mobile host Identifiers (ID)** having an IP address which are assigned to the data terminal stations 11, 15 of the mobile hosts 12, 16 which are **registered** in the HLR1. The **mobile identification numbers (MIN)** of the mobile stations 12, 16 corresponding to the data terminal stations 11, 15 are also **registered** in the HLR1.”

destination address to compare with the address of current router/hub device to route data internally and when the connection is destined for an external/public device, then the current hub/router would forward the connection to a second hub/gateway to go out to the external network”,

raises great concerns about the completeness of examination, and the ability of the Office to comply with a degree of completeness and intelligence required by 37 CFR §1.104(a)(b). Accordingly, Applicant explicitly requests that the Examiner identify, with specificity, precisely where the administrative record and art included within that record teaches “*use destination address to compare with the address of current router/hub device to route data internally*”, and where the administrative record teaches “*when the connection is destined for an external/public device, then the current hub/router would forward the connection to a second hub/gateway to go out to the external network*”. Applicant requests this information be issued by the Office in **non-final** correspondence in order to enable Applicant to fully understand the bases for this rejection, to accord Applicant an opportunity to carefully study that information and to afford Applicant an opportunity to challenge or contradict the finding of fact drawn by the Office from that information.

In view of the foregoing amendments and remarks, claims 1 and 32, and the dependent claims thereof, are deemed to be allowable and this application is believed to be in condition to be passed to issue. If there are any questions, the examiner is asked to contact the applicant’s attorney.

No fee is incurred by this Amendment.

Respectfully submitted,

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